AMENDMENTS TO THE CLAIMS

Please replace the claims, including all prior versions, with the listing of claims found below.

LISTING OF CLAIMS:

1. (Cancelled)

2. (Currently amended) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing white balance adjustment of the first signal to produce a linear signal;

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing white balance adjustment of the second signal, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion;

a logarithmic/linear conversion circuit converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the first signal processing circuit and a signal converted linearly from the logarithmic/linear conversion circuit, the third signal processing circuit performing at least one of matrix conversion, edge enhancement, color adjustment and inverse matrix conversion to produce the linear signal.

3. (Cancelled)

4. (Original) The solid-state image sensing apparatus as claimed in claim 2, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

5. (Cancelled)

6. (Cancelled)

7. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 6, wherein a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals, and

the signal processing circuit performs white balance adjustment of the supplied signals.

8. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 6, wherein the signal processing circuit performs gamma correction of the supplied signals.

9. (Withdrawn) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a first signal processing circuit supplied with the second signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a linear/logarithmic conversion circuit converting the first signal to a signal natural-logarithmically proportional to the intensity of the incident light; and

a second signal processing circuit supplied with a signal from the first signal processing

circuit and a signal from the linear/logarithmic conversion circuit.

10. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9, wherein a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals, and

the second signal processing circuit performs white balance adjustment of the supplied signals.

11. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9, wherein the second signal processing circuit performs gamma correction of the supplied signals.

12. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 9, wherein a dynamic range of the second signal is adjusted at the first signal processing circuit.

13. (Withdrawn) A solid-state image sensing apparatus, comprising:

a solid-state image sensing device outputting an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light,

a linear/logarithmic conversion circuit converting the first signal to a signal natural-logarithmically proportional to the intensity of the incident light; and

a signal processing circuit supplied with the second signal and a signal from the linear/logarithmic conversion circuit.

14. (Withdrawn) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity

of the incident light, comprising:

a first signal processing circuit supplied with the first signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a second signal processing circuit supplied with the second signal from the solid-state image sensing apparatus and performing a predetermined signal processing;

a linear/logarithmic conversion circuit converting a signal output from the first signal processing circuit to a signal natural-logarithmically proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the second signal processing circuit and a signal from the linear/logarithmic conversion circuit.

15. (Withdrawn) A solid-state image sensing apparatus as claimed in claim 14, wherein

a plurality of color filters are provided in the solid-state image sensing device, and the first signal and the second signal output from the solid-state image sensing apparatus each comprise a plurality of color signals,

the first signal processing circuit performs white balance adjustment of the first signal, and

the second signal processing circuit performs white balance adjustment of the second signal.

16. (Withdrawn) The solid-state image sensing apparatus as claimed in claim 14, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

17. (Withdrawn) A solid-state image sensing apparatus as claimed in claim 14, wherein a dynamic range of the second signal is adjusted at the second signal processing circuit.

18-26. (Cancelled)

27. (Currently amended) A solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light,

the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, comprising:

a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprise a plurality of color signals;

a first signal processing circuit supplied with the first signal from the solid-state image sensing device and performing ~~a predetermined signal processing~~ white balance adjustment of the second signal as a logarithmic signal;

a second signal processing circuit supplied with the second signal from the solid-state image sensing device and performing a predetermined signal processing;

a logarithmic/linear conversion circuit converting a signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light; and

a third signal processing circuit supplied with a signal from the first signal processing circuit and a signal from the logarithmic/linear conversion circuit, the third signal processing circuit performing at least one of matrix conversion, edge enhancement, color adjustment and inverse matrix conversion to produce a linear signal.

~~wherein a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved, the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmically conversion.~~

28. (Currently amended) The image sensing apparatus of claim [[~~27~~]]32, wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

29. (Cancelled)

30. (Previously presented) The image sensing apparatus of claim 2, wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

31. (New) The image sensing apparatus of claim 27, where a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the signal is improved.

32. (New) The image sensing apparatus of claim 31, wherein the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmic conversion.

33. (New) The image sensing apparatus of claim 27, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.

34. (New) A signal processing method performed by a solid-state image sensing apparatus having a solid-state image sensing device that outputs an electrical signal proportional to an intensity of incident light, the solid-state image sensing device configured for outputting a first signal converted linearly to the intensity of the incident light and a second signal converted natural-logarithmically to the intensity of the incident light, the solid-state image sensing device comprising a plurality of color filters provided in the solid-state image sensing device, wherein the first signal and the second signal output from the solid-state image sensing apparatus comprising a plurality of color signal, the method comprising:

performing white balance adjustment of the first signal to produce a linear signal by a first signal processing circuit;

performing white balance adjustment of the second signal as a logarithmic signal by a second signal processing circuit;

converting the signal output from the second signal processing circuit to a signal linearly proportional to the intensity of the incident light by a logarithmic/linear conversion circuit; and

performing at least one of matrix conversation, edge enhancement, color adjustment and inverse matrix conversion on both the signal output from the first signal processing circuit and the logarithmic/linear conversation circuit to produce the linear signal by a third signal processing circuit.

35. (New) The signal processing method of claim 34, where in a dynamic range of the second signal is adjusted at the second signal processing circuit thereby a contrast of the second signal is improved.

36. (New) The signal processing method of claim 35, wherein the adjustment of the dynamic range increasing a compressed range of a luminance distribution of the imaged subject by natural-logarithmic conversion.

37. (New) The signal processing method of claim 36, wherein the adjustment of the dynamic range is performed in accordance with a luminance distribution of the subject.

38. (New) The signal processing method of claim 34, wherein the first signal processing circuit performs gamma correction of the first signal, and the second signal processing circuit performs gamma correction of the second signal.